

ABSTRACT OF THE DISCLOSURE

A transmission system is provided that recognizes occurrence of a fault efficiently so that the workability and quality of service can be improved. An optical amplifier part
5 amplifies an optical main signal. A fault occurrence recognizing part detects a pump light used for an opposing device via an optical fiber transmission line to which an optical main signal is sent by the repeater. If the pump light is not detected, the fault occurrence recognizing part
10 recognizes occurrence of a fault. A light cutoff control part stops the optical amplifying part outputting an amplified signal so that the light cutoff control in only one of two directions is performed when a fault occurs.